IV. PREVIOUS INVESTIGATIONS

As the prehistoric and historic background sections demonstrate, the record of Native American and European occupation in the Middle Atlantic region and Delaware is extensive. Settlements and activity over the course of millennia have led to the formation of numerous archaeological sites. In order to provide a comparative basis for evaluating the Iron Hill East site and the potential for cultural resources at the proposed stormwater management sites, the results of previous archaeological investigations conducted in the area were reviewed.

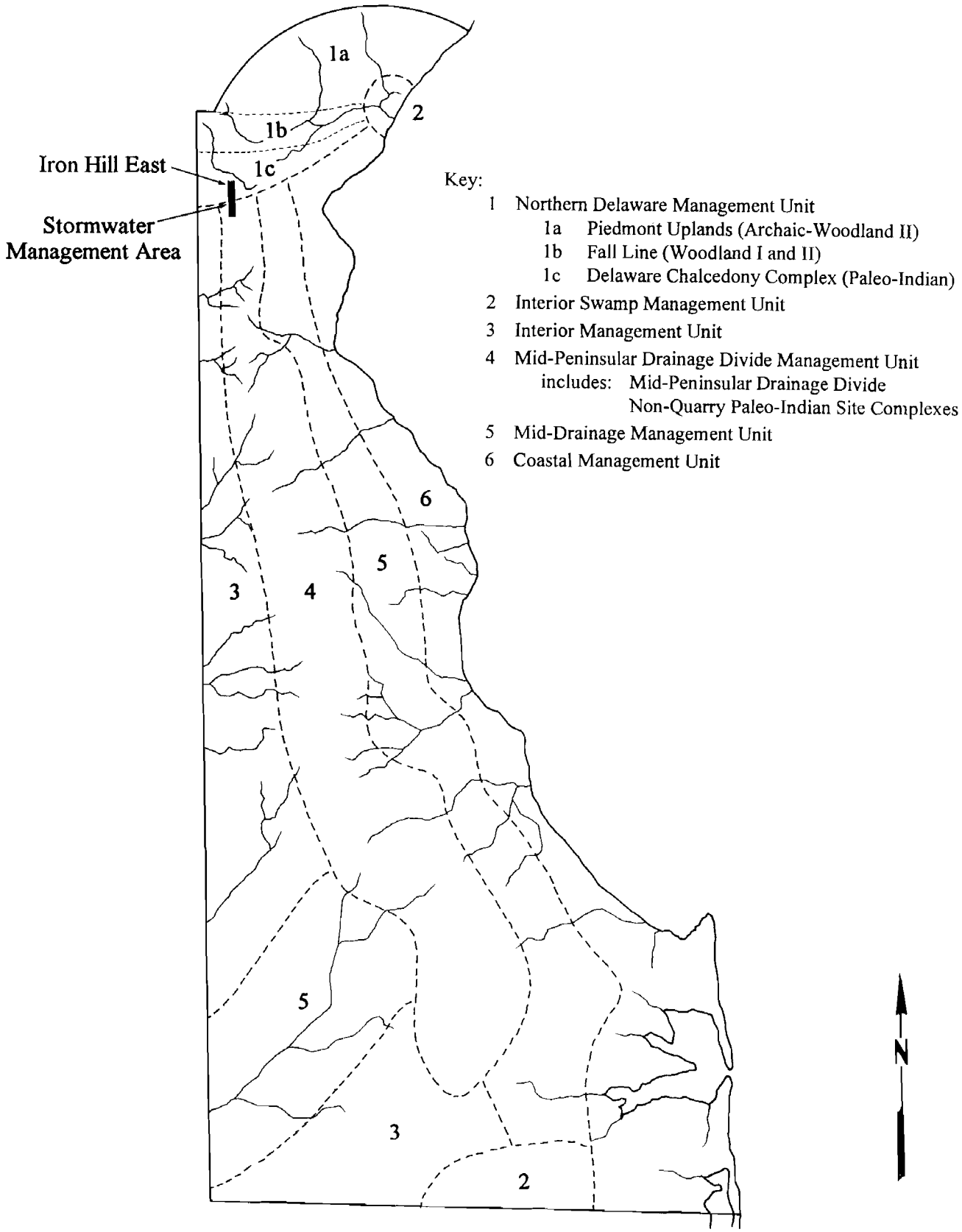
The official files of the Delaware State Historic Preservation Office in Dover were consulted to determine the location of archaeological and architectural sites in the vicinity of the project areas. Information was collected concerning prehistoric and historic sites shown along the SR 896 corridor on the Newark West, Newark East, and Saint Georges USGS quadrangles.

A. Management Units

The Delaware State Historic Preservation Office has sponsored preparation of a series of Management Plans that identify the state's cultural resources and establish criteria by which to determine the significance of those resources. These Management Plans provided a framework for the present assessment of the significance of cultural resources along the SR 896 corridor. Information concerning historic contexts and property types was extracted from the *Delaware Comprehensive Historic Preservation Plan* (Ames et al. 1989), *A Management Plan for Delaware's Prehistoric Cultural Resources* (Custer 1986), *A Management Plan for the Prehistoric Archaeological Resources of Northern Delaware* (Custer and DeSantis 1986), and *Management Plan for Delaware's Historical Archaeological Resources* (DeCunzo and Catts 1990a).

The proposed stormwater management ponds are situated in the Mid-Peninsular Drainage Divide Management Unit (Figure 4-1), as defined by Custer (1986). Compared to other geographic areas in Delaware, the Mid-Peninsular Drainage Divide is considered to exhibit medium probability for producing significant data from prehistoric sites. Although the number of identified sites is moderate, the probability for the further discovery of significant sites is considered medium-to-high for the Paleo-Indian period, medium for the Archaic, low-to-medium for the Woodland I, and unlikely for the Woodland II and Contact Periods. The quality of existing data for this unit is considered to be fair for Paleo-Indian sites, and poor for Archaic, Woodland I, Woodland II, and Contact Period sites. For the Paleo-Indian period, the probability for quarry sites or quarry-related sites is low compared to that of base camps, base camp maintenance stations, and hunting sites, each of which display moderate-to-high probability. For the Archaic, Woodland I, and Woodland II period sites, the probability for macro-band base camps is considered low, for micro-band base camps low-to-moderate, and for procurement sites moderate (Custer 1986). Based on an understanding of known sites, the sites with the highest potential for yielding significant information are considered to be Paleo-Indian base camps, base camp maintenance stations, and hunting sites; Archaic micro-band base camps and procurement sites; and Woodland I procurement sites.

The Iron Hill East site is situated in the Northern Delaware Management Unit, under the sub-unit referred to as the Delaware Chalcedony Complex (Custer 1986). In a general ranking of geographic areas in Delaware, the Northern Delaware Unit is considered to exhibit a moderate likelihood for the presence of prehistoric sites with significant data. The likelihood by period is considered moderate for Paleo-Indian sites, Woodland I and Woodland II sites, low for Contact period sites, and unlikely for Archaic sites. Although the potential for sites to contain significant information exists, the quality of data retrieved from previous archaeological investigations in the Delaware Chalcedony Complex sub-unit is considered to be poor for all prehistoric time periods. Site probability is considered high for Paleo-Indian quarries, quarry reduction sites, quarry related base camps, base camp maintenance stations, hunting sites, and Archaic to



Source: Custer 1986: Figure 33, Table 16

SR 896

Figure 4-1
Cultural Resource
Management Units
State of Delaware

Woodland II procurement sites. In contrast, the probability for Paleo-Indian base camps, Archaic, Woodland I, Woodland II macro-band and micro-band base camps is considered low. Although data quality is low in the Delaware Chalcedony sub-unit, the particular zone in which the Iron Hill East site is situated has a high number of known sites and high quality data (Custer 1986).

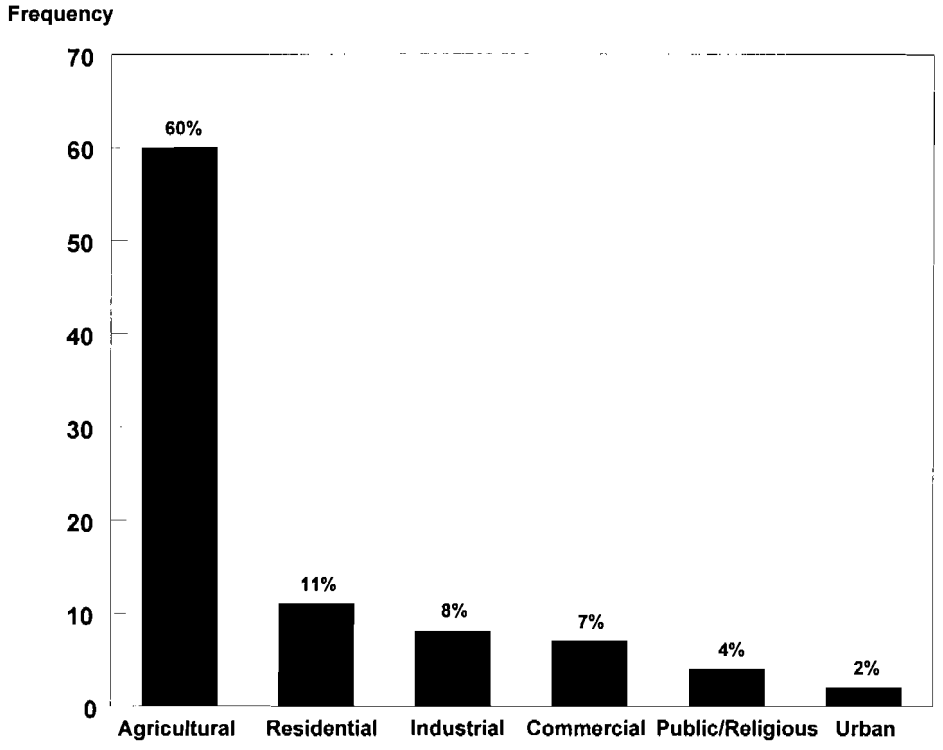


Figure 4-2. Frequency of Historic Period Site Types in New Castle County

With regard to historic archaeological contexts, the proposed stormwater management ponds and the Iron Hill East site are situated in geographic zones that are referred to as the Upper Peninsula of New Castle County (DeCunzo and Catts 1990a). Of the three counties in the state, New Castle County has the highest number of recorded historical archaeological sites in the state—107 sites, or 42 percent of known sites. Within New Castle County, the highest number of sites occur in the Upper Peninsula zone—72 percent of the total. Figure 4-2 summarizes the frequency of historic period site types in New Castle County. Most are recorded as agricultural (60 percent), followed

by residential (11 percent), industrial (8 percent), commerical (7 percent), public/religious (4 percent), and urban (2 percent). Categories referred to as "unknown" and "other" make up the remaining 8 percent of the total (DeCunzo and Catts 1990a: Table 10). Of the historic period sites, most fall chronologically within a range beginning with the last quarter of the eighteenth century and extending into the mid-twentieth century. Relatively few sites are recorded from the seventeenth century, and none from the second to third quarter of the eighteenth century. Within Block D of New Castle County, where the proposed stormwater management ponds and Iron Hill are situated, 37 historic period sites have been recorded. Of these, 7 were surface collected, 26 were excavated, and 4 remained unexcavated (De Cunzo and Catts 1990: Table 9). On the whole, DeCunzo and Catts (1990a: 180) concluded that the number of inventoried historical archaeological sites for the state of Delaware is inadequate for all time periods, site types, and geographic regions.

B. Prehistoric and Historic Period Sites

1. Iron Hill Vicinity

Iron Hill and its surroundings have been identified as exhibiting high potential for the presence of micro-band base camps and procurement sites from the Archaic through the Woodland II periods (Custer 1986; Custer and DeSantis 1986). The cryptocrystalline lithic outcrops of Iron Hill and its vicinity made it an important resource area that was exploited in all prehistoric time periods, with special significance noted during the Paleo-Indian period (Custer 1986; Custer et al. 1986a). Thus the potential for quarry or quarry-related sites is assumed to be high.

Prehistoric

Many sites near Iron Hill associated with the Delaware Chalcedony Complex have been investigated. Among the sites in close proximity to the current project area are the Iron Hill Cut Quarry site (18CE65), Site 7NC-D-3, Site 7NC-D-19, the Everett site (7NC-

D-21), the Iron Hill School Quarry site (7NC-D-34), and a group of sites referred to as the Cooch Complex sites.

The Iron Hill Cut Quarry site (18CE65) is located in Maryland east of the Penn Central Northeast Corridor railroad tracks, immediately south of the Interstate 95 overpass. A lithic reduction site is located on the bank of a small stream near the quarry. The quarry area is composed of an outcrop of high quality cryptocrystalline jasper, with color varieties consisting of yellow, red, and black (Custer et al. 1986a). The raw materials are found as spalls and boulders. Primary flakes were found at the quarry and in the lithic reduction site. The lithic reduction area also contained cores, debitage, a flake tool, and a possible hammerstone. The age of the sites could not be determined. The artifacts are considered to be undisturbed and in good context (Custer et al. 1986a: 5).

Site 7NC-D-3 is located on a small knoll along an ephemeral stream flowing into the Christina River. The site contains numerous primary and secondary jasper bifaces (Custer et al. 1986a). The site was occupied from the Paleo-Indian to the Woodland II as indicated by temporally diagnostic projectile points.

Site 7NC-D-19 is located on the floodplain of Persimmon Run, a tributary of the West Branch of the Christina River. The site contains a large amount of jasper flaking debris, along with cores and rejected bifaces (Custer et al. 1986a). Projectile points from the site indicate occupation during the Woodland I and Woodland II Periods.

The Everett Site (7NC-D-21) is located near a poorly drained area that may be a bay/basin feature. The site represents a Paleo-Indian locality, containing a fluted point and notched Kirk and Palmer points, and a variety of cutting and scraping tools of jasper (Custer et al. 1986a). The site is considered to be a hunting site or base camp maintenance site.

The Iron Hill School Quarry (7NC-D-34) is located on the southern slope of Iron Hill along an intermittent tributary of Muddy Run. Nodules and blocks of brown jasper, and some black chert, are found eroding from the hillslopes and along the stream. Test excavations were undertaken at the site in 1974 by the Delaware Bureau of Archaeology and Historic Preservation, although there is no formal report of the fieldwork. The excavations recovered large amounts of jasper debitage and associated debris, mostly consisting of blocky cores and early stage bifaces (Custer et al. 1986a). Vidal (1988) later tested the site, recovering over 14,000 artifacts. In addition to large amounts of debitage, the assemblage consisted of many early stage bifaces and rejected late stage debitage. Two diagnostic projectile points were found, indicating site chronology ranging from the Archaic period through Woodland I. Ninety-nine percent of the artifacts were classified as jasper debitage, most of which was cortical. Heat treating was relatively common—27 percent of the pieces showed evidence of heating. Although the recovered artifacts were consistent with primary reduction and quarrying, the recovery of late stage debitage, as well as tools and fire-cracked rock, suggested other activities. As a result, the site was presumed to have included a basecamp/workshop component, with occupation centered around springs and streams. Importantly, although a large amount of jasper was present in the excavations, Vidal (1988:28) notes that the quantity of high quality lithics in the area was low. Many field samples appeared to consist of knappable material, yet the pieces often contained pockets and veins of manganese or quartz. During experimental reduction, many samples were found to shatter upon impact, producing large amounts of debitage, some of which did not display cortex (Vidal 1988:29).

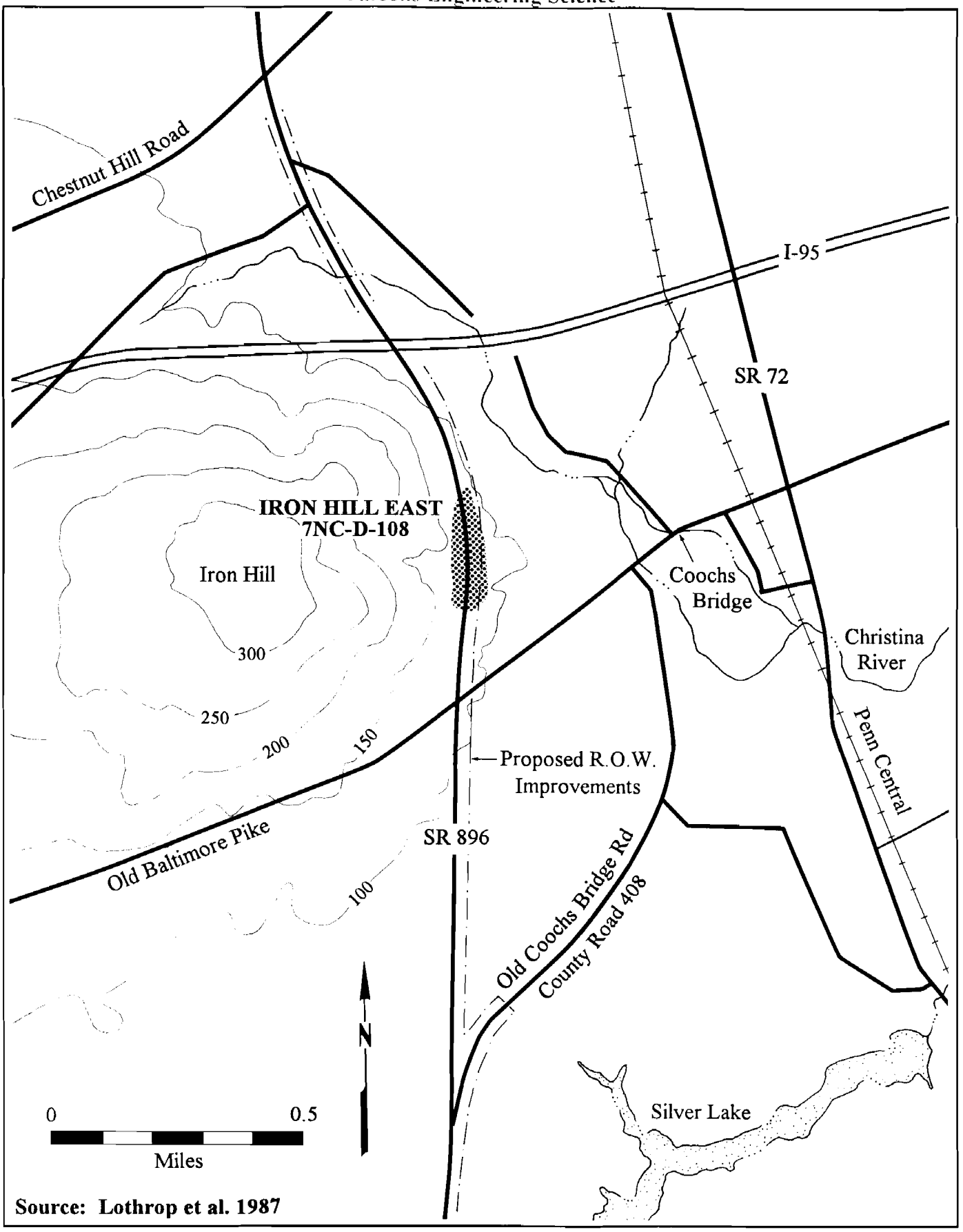
The Cooch Complex (Custer et al. 1986a) consists of two sites, Iron Hill East (7NC-D-108) and the Cooch's Bridge Site (7NC-D-1). The Iron Hill East site, a quarry locale, is the topic of the current report and will be discussed in a later section. The Cooch's Bridge site is a possible base camp located on the floodplain of the Christina River. The collections consist of early and late stage bifaces that appear to be manufactured from material quarried from the nearby jasper outcrops. A stemmed point

and Minguannan ceramics indicate Woodland I and Woodland II occupations (Custer et a).

A Phase I survey was conducted along SR896 in advance of the proposed widening of the corridor. The survey was undertaken by archaeologists from the University of Delaware Center for Archaeological Research (Lothrop et al. 1987). In spite of the impact on cultural resources represented by commercial and residential development in the area and the construction of Interstate 95, the survey was considered to have the potential for locating various site types. Micro-band base camps and procurement sites were expected from all prehistoric periods, from the Paleo-Indian to the Woodland II (Lothrop et al. 1987). Quarry-related base camps were predicted to be located near well-drained areas along the Christina River floodplain (Custer 1986).

Phase I survey was conducted along SR 896 at the foot of Iron Hill and resulted in the discovery of the Iron Hill East site (Figure 4-3) (Lothrop et al. 1987). Prehistoric materials were present on both the eastern and western margins of the current right-of-way, within the proposed right-of-way extension. Prehistoric artifacts recovered during the survey were interpreted as evidence of the primary reduction of locally quarried jasper (Lothrop et al. 1987). The material was considered to represent early stage reduction, and most of the debris was considered waste matter. No temporally diagnostic material was recovered.

The Phase I survey of SR 896 also identified the Martucelli Site (7NC-D-112, N-10901), a prehistoric lithic scatter (Lothrop et al. 1987). The site is located west of SR 896, immediately north of the intersection with County Road 408 (Old Cooches Bridge Road). Phase I and Phase II work was conducted (Lothrop et al. 1987). The artifact scatter consisted of cores, flakes, a late stage biface, and a fire-cracked rock. No chronologically diagnostic artifacts were recovered. There was evidence of modern fill and dumping along the existing rights-of-way, and a large amount of construction debris was identified within the site boundaries. Much of the prehistoric material appeared



SR 896

Figure 4-3
Iron Hill East
Location

redeposited, hence the site was not considered eligible for listing on the National Register of Historic Places.

Historic

The Cooch's Bridge Historic District (N-190) is the location of many eighteenth through twentieth century structures and features that form a National Register District. The district consists of 28 contributing buildings, 21 structures, 3 sites, and 1 object (Revised National Register Registration Form, 1989). This District contained the eighteenth century Cooch House, and the nineteenth century Dayett and Armstrong Houses, Dayett's Mill, and the former sites of the Thomas and William Cooch Mills. In addition, the District is the purported place where the major actions of the Revolutionary War Battle of Cooch's Bridge took place on September 3, 1777. During survey of the SR 896 right-of-way, no historic resources were encountered (Lothrop et al. 1987). The potential for cultural resources relating to the battle was considered low since military engagements usually produce low density, discontinuous distributions of material.

Besides its prehistoric affiliation, the Iron Hill School Site (7NC-D-34) is also composed of an open pit iron mine and the foundations of a pre-1920 schoolhouse. The iron mine consists of a mine pit, a spoil pile, a work area, a tenant house, and an abandoned ore road (Vidal 1988).

2. Glasgow Vicinity

Prehistoric

The Jarmon Site (7NC-D-113, N-10902) is located south of Glasgow, on the east side of SR 896. This prehistoric site was identified during surface reconnaissance of the SR 896 right-of-way (Lothrop et al. 1987) The site was considered the locus of several cultural occupations. Based on the projectile points recovered, the site dates to the Woodland I and possibly to the late Paleo-Indian periods. The materials were not concentrated in discernible cultural patterns. Because there were few finds in primary

context, and because of the low potential for buried deposits, no Phase II investigations were recommended.

The Koval Site (7NC-D-92, N-6321) is located east of SR 896 and north of Muddy Run, situated on a small rise overlooking the stream. Surface collections resulted in the discrimination of three separate lithic concentrations, mostly consisting of debitage. Since the site was outside the right-of-way, no further work was conducted (Lothrop et al. 1987).

Historic

For most of its history, Glasgow has remained a small community, and its role in the history of Pencader Hundred has always been minor (Lothrop et al. 1987). The community began to develop in the eighteenth century. The village remained small in scale for most of its history, although some post World War II development has occurred as a consequence of residential and commercial growth in the area.

The New Castle and French Town Railroad Right-of-Way (N-422) is located south of Glasgow, bisecting SR 896 on a east-west transect. The railroad, consisting of its bed and lines, is listed on the National Register of Historic Places. Since its architectural features were apparent, and there was little potential for additional archaeological features, no subsurface investigations were performed on the railroad right-of-way during the survey (Lothrop et al. 1987).

Several residential structures south of Glasgow were owned by the prosperous Cann family during the late-eighteenth to early-twentieth centuries (Lothrop et al. 1987). The J. Cann House (N-3977) was a four-bay brick structure. The R.T. Cann House (N-3983) was located nearby, but was demolished in 1982. Background research indicated that several other structures were also located in the vicinity of these houses. The Cann House was considered architecturally significant as an outstanding example of vernacular domestic architecture in Pencader Hundred (Bowers 1987). The agricultural and

domestic outbuildings were considered contributing elements, as they represented the continuing viability of the property as an agricultural unit throughout the nineteenth and twentieth centuries.

The Evan Lynch House (N-3979) is located on the east side of SR 896, south of the intersection of SR 896 and U.S. Route 40. The house was considered architecturally significant as one of the few remaining wood-frame structures associated with Glasgow's nineteenth century history (Bowers 1987).

The Hermitage (N-3990) is an agricultural complex of over 40 buildings situated on the north side of U.S. Route 40 in Glasgow. The farmstead was considered to have local architectural significance (Bowers 1987). The farmhouse had distinctive characteristics of the Georgian I-house form, which was a dominant theme in the rural domestic architecture of northern Delaware. The associated agricultural complex had significance as a large scale dairy operation in the first decades of the twentieth century.

The A. Adair House (N-3903) and the W.D. Adair House (N-3982) are located on the east side of SR 896. These two structures are part of the Adair farmstead. The original house is still standing, but because of renovations, the house was found not to be eligible for listing on the National Register of Historic Places. Phase I subsurface testing in the vicinity of these structures resulted in the recovery of few materials, but no archaeological site designation was considered warranted (Lothrop et al. 1987).

The John Scott Site (7NC-D-110, N-10607) is located in Glasgow, east of the U.S. Route 40-SR 896 intersection. This historic site was subject to Phase I and Phase II investigations (Lothrop et al. 1987). The site was located within the current median of U.S. Route 40. Background research indicated this was a farmstead or residence originally dating to 1868. Shovel testing and test unit excavation revealed the presence of artifacts and buried remnants of the house foundation. Many of the materials were redeposited, however, resulting in mixed nineteenth and twentieth century contexts.

Since the site had been severely disturbed by modern construction, the site was not considered eligible for listing on the National Register of Historic Places.

The Thos. Williams Site (7NC-D-130, N-10900) is located east of SR 896 and north of U.S. Route 40. This historic site was subject to Phase I and II investigations (Lothrop et al. 1987). The site consisted of a house foundation and numerous associated domestic features. Archival information and archaeological materials indicated site occupation from the second quarter of the nineteenth century and into the early twentieth century. The site was considered to be eligible for listing on the National Register of Historic Places based on its ability to contribute data important to the understanding of domestic residences.

North of Glasgow, three dwellings are preserved that were former tenant houses associated with the nineteenth century holdings of the prosperous Clark family in Pencader Hundred (Lothrop et al. 1987; Bowers 1987). The three dwellings are I-houses, two stories high and one room deep, characteristic of much of the rural domestic architecture in northern Delaware. Because the houses have lost much of their integrity due to renovations, the houses were found to be not eligible for listing on the National Register of Historic Places (Bowers 1987).

Former tenant houses associated with the Clark family were investigated during the archaeological survey and testing program (Lothrop et al. 1987). The site of Clarksdale Tenancy #1 (7NC-D-111, N-10288) is located in the triangular median formed by the intersection of SR 896 and County Road 408 (Old Cooches Bridge Road). Archival research indicated that there was a tenant structure at this location as early as 1868. However, the area underwent extensive disturbance as a result of the original construction of SR 896 in 1937-38. A later residence and gasoline station were reported on the site from the late 1930s through the 1960s. In addition to structural and artifactual evidence of twentieth century use of the property, the archaeological investigations documented the presence of a nineteenth century foundation, and both nineteenth and

twentieth century artifacts. Due to the poor state of preservation of the foundation and the degree of disturbance in the area, the site was not considered eligible for listing on the National Register of Historic Places, and no further work was recommended (Lothrop et al. 1987).

Clarksdale Tenancy #2 (7NC-D-115, N-10616) is located west of SR 896, approximately 1000 feet south of the intersection with County Road 408 (Old Cooches Bridge Road). The original tenant structure was still standing, though in modified form. Shovel test and test unit excavations yielded artifacts typical of the turn of the century. Three episodes of remodeling of the original structure were documented, along with alterations to the yard area. Because of ground disturbances and rebuilding episodes, the site was considered to be not eligible for listing on the National Register of Historic Places, and no further work was recommended (Lothrop et al. 1987).

District School #56 (N-3881) is located on the west side of SR 896, one-half-mile north of the intersection with U.S. Route 40 at Glasgow. The schoolhouse is considered to be eligible for listing on the National Register of Historic Places since the site is directly associated with the history of rural public education in Pencader Hundred and the community of Glasgow (Bowers 1987). The school building retains a high level of integrity, displaying the basic features characteristic of rural educational architecture in north-central Delaware.

C. Summary

The results of the background research presented here indicate the presence of a relatively large number of known cultural resources along SR 896. These resources consisted of both prehistoric sites and historic sites, the latter consisting of standing structures and archaeological deposits. While architectural and archaeological sites have been identified in and near the current project area, few of the previous investigations have been intensive, most consisting of inventory surveys and testing programs. Only

limited information has been gathered through systematic data recovery. As a consequence, prehistoric and historic settlement and land use patterns are only beginning to be understood for the area. Echoing Custer's (1986) evaluation of the current state of knowledge of prehistoric occupation in the Management Units, the number of identified sites is moderate, the probability for the further discovery of significant sites is moderate, but quality of existing data is, for the most part, poor.

The large majority of the historic period sites recorded consist of nineteenth century farmsteads with standing structures and archaeological components. Of the prehistoric sites, materials of all ages have been recovered, spanning from the Paleo-Indian Period to the Woodland II. Most of the sites consist of variable density scatters of chipped stone artifacts, with occasional finds of intact features, and generally few ceramics. In the previous investigations, identified prehistoric sites are often evaluated in light of their relationship to the Delaware Chalcedony Complex and the nature of prehistoric occupation and settlement in Northern Delaware and the Mid-Peninsular Drainage Divide. Only one site has undergone excavation, the Iron Hill School site (7NC-D-34), where large amounts of primary jasper quarry debris were recovered.